

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listing of claims in the application:

Listing of Claims:

1. (currently amended) A hardener [[Hardener]] for curing of epoxy resins which produces materials with high abrasion resistance, photostability and chemical resistance, [[characterized in that]] wherein the hardener comprises a sol prepared by controlled hydrolysis and condensation of compounds of the type:



where n = 1 or 2, X = SH, -N=C=O, or NR₁R₂, R₁, R₂ being chosen from hydrogen, saturated or unsaturated C₁-C₁₈-alkyl, substituted or non-substituted aryl, formyl, aliphatic or aromatic carbonyl, carbamoyl, sulphonyl, sulphoxyl, phosphonyl, sulphinyl, phosphinyl, while the carbon chains of said compounds may include one or more of the elements oxygen, nitrogen, sulphur, phosphorus, silicon and boron, and/or may include one or more hydrolysable silane units or R₁, R₂ are chosen from condensation products or addition products of one or more types or chemical compounds such as acids, alcohols, phenols, amines, aldehydes or epoxides, and B is a spacing group chosen from saturated or unsaturated C₁-C₁₈-alkylene, substituted or non-substituted arylene, while the carbon chains of the stated compounds may include one or more of the elements oxygen, nitrogen, sulphur, phosphorus, silicon and boron and Y is chosen from hydrolysable groups such as alkoxy, carboxyl, and halogen.

2. (currently amended) A hardener [[Hardener]] as claimed in claim 1, [[characterized in that]] wherein the hardener also comprises at least one UV-absorber.

3. (currently amended) A hardener [[Hardener]] as claimed in claim 1, [[characterized in that]] wherein the hardener also comprises at least one free radical scavenger.

4. (currently amended) A hardener [[Hardener]] as claimed in claim 1, [[characterized in that]] wherein the hardener also comprises at least one antioxidant.

5. (currently amended) A hardener [[Hardener]] as claimed in claim 1, [[characterized in that]] wherein the hardener also comprises at least one dye and/or pigment.

6. (currently amended) A hardener [[Hardener]] as claimed in claim 1, [[characterized in that]] wherein the hardener also comprises at least one filler.

7. (currently amended) A hardener [[Hardener]] as claimed in claim 1, [[characterized in that]] wherein the hardener also comprises at least one additive.

8. (withdrawn) Hardener as claimed in claim 1, characterized in that X = NR₁R₂, R₁ is hydrogen and R₂ is H-(HN-CH₂-CH₂-)_m where m = 0-6, B is propylene, n = 1, and Y is an ethoxy or methoxy.

9. (withdrawn) Hardener as claimed in claim 1, characterized in that X = NR₁R₂, R₁ is hydrogen and R₂ is

phenyl, B is propylene, n = 1, and Y is ethoxy or methoxy.

10. (withdrawn) Hardener as claimed in claim 1, characterized in that X = NR₁R₂, R₁ is hydrogen and R₂ is carbamoyl, B is propylene, n = 1, and Y is ethoxy or methoxy.

11. (withdrawn) Hardener as claimed in claim 1, characterized in that X = SH, B is propylene, n = 1, and Y is ethoxy or methoxy.

12. (withdrawn) Hardener as claimed in claim 1, characterized in that X = -N=C=O, B is propylene, n = 1, and Y is ethoxy or methoxy.

13. (withdrawn) Hardener as claimed in claim 1, characterized in that the sol is prepared entirely or partly by controlled hydrolysis and condensation of bis (γ -trialkoxysilylpropyl)amine.

14. (withdrawn) Hardener as claimed in claim 1, characterized in that the sol is prepared entirely or partly by controlled hydrolysis and condensation of tri[3-(trialkoxysilylpropyl)isocyanurate].

15. (currently amended) A hardener [[Hardener]] as claimed in claim 1, [[characterized in that]] wherein more or less free amino groups at the surface of the particle-forming condensation product in the sol has been entirely or partly converted with reactive compounds such as epoxides, acid derivatives, blocked and non-blocked isocyanates and compounds of the type R-X where X is a suitable atom or atom group that

may be replaced and R is an organic residue or a fraction of such residue.

16. (currently amended) A hardener [[Hardener]] as claimed in claim 15, [[characterized in that]] wherein X is chosen among halogen, substituted or non-substituted alkoxy, phenoxy, amine, carboxylate, sulphonate, sulphinate, phosphonate and phosphinate.

17. (currently amended) A hardener [[Hardener]] as claimed in claim 15, [[characterized in that]] wherein R is chosen among non-substituted saturated and unsaturated C₁-C₂₄ alkyl, substituted saturated or unsaturated C₁-C₂₄ alkyl, substituted or non-substituted aryl, aliphatic or aromatic carbonyl, wherein the carbon chains of said compounds may optionally include one or more of the elements nitrogen, sulphur, silicon and boron and groups chosen among condensation products of one or more type of chemical compounds such as acids, alcohols, phenols, amines, aldehydes and epoxides.

18. (currently amended) A cured [[Cured]] epoxy material, ~~characterized in that it is manufactured from an epoxy resin and a hardener as defined by claim 1.~~

19. (currently amended) A method [[Method]] for curing epoxy resins, [[characterized in]] comprising the steps of
i) producing a stable sol by controlled hydrolysis and condensation of a silane compound of the formula:



where n = 1 or 2, X = SH, -N=C=O, or NR₁R₂, R₁, R₂ being chosen

from hydrogen, saturated or unsaturated C₁-C₁₈-alkyl, substituted or non-substituted aryl, formyl, aliphatic or aromatic carbonyl, carbamoyl, sulphonyl, sulphoxyl, phosphonyl, sulphanyl and phosphinyl, while the carbon chains of said compounds may optionally include one or more of the elements oxygen, nitrogen, sulphur, phosphorus, silicon and boron, and/or may include one or more hydrolysable silane units or R₁, R₂ are chosen from condensation products or addition products of one or more types or chemical compounds such as acids, alcohols, phenols, amines, aldehydes or epoxides, said silane compound optionally being a modified one, and that

ii) the sol, subsequent to possible storage, is mixed with an epoxy resin so that the latter is cured.

20. (currently amended) A method [[Method]] as claimed in claim 19, [[characterized in that]] wherein unwanted reaction products from step i), such as alcohols and water, are removed from the sol prior to step ii).

Claim 21 (canceled).